

# INTRODUCTION

## CHAPTER 1

## 1.0 Introduction

Barrick Goldstrike Mines Inc. (BGMI) proposes to construct and operate the Betze Pit Expansion Project, which would include development of new facilities and expansion of existing open-pit gold mining operations at the Goldstrike Mine. The Goldstrike Mine is located in north-central Nevada approximately 25 miles northwest of Carlin in Eureka and Elko counties (**Figure 1-1**). BGMI, a wholly owned subsidiary of Barrick Gold Corporation, submitted an Amendment to the Plan of Operations (POO) (NVN-70708) and Reclamation Permit (0026) for the proposed Betze Pit Expansion Project on January 7, 2007, to the Bureau of Land Management (BLM) Elko District Office in compliance with 43 Code of Federal Regulations (CFR) 3809. A revised POO was submitted in June 2007. The proposed project would result in expansion of the Betze Pit, construction of the Clydesdale Waste Rock Facility and haul road, construction of the Goldstrike No. 3 Tailings Facility, and extension of employment at the Goldstrike Mine for an additional 4 years. The proposed project would utilize some of the existing primary facilities, including ore processing facilities and ancillary support facilities. If approved, the anticipated mine life would be extended approximately 4 years through 2015, followed by an estimated 15 years for ongoing ore processing and an additional 4 years for site closure and reclamation. To the extent possible, reclamation would occur concurrently with mine operations. Site closure and final reclamation would occur approximately 3 to 5 years beyond the end of ore processing.

The proposed Betze Pit Expansion Project would be located within Township 36 North (T36N), Range 49 East (R49E) and T36N, R50E in Eureka and Elko counties. The majority of the proposed 1,477 acres of surface disturbance would be located on private lands owned by BGMI. A total of 510 acres of public land administered by the BLM Elko District Office would be disturbed. Surface ownership in the project area is presented in **Figure 1-2**. The 1,477 acres of surface disturbance includes 297 acres of previously authorized disturbance for a total of 1,180 acres of new disturbance.

The proposed mining activities would be located on public and private lands. Although BLM approval is required only for the public lands involved pursuant to the Federal Land Policy and Management Act of 1976 (FLPMA), as amended, and the BLM's surface management regulations (43 CFR Subpart 3809), BLM is required by the National Environmental Policy Act of 1969 (NEPA) to review the impacts of the overall proposal including impacts on both public and private lands. The BLM has determined that a Supplemental Environmental Impact Statement (SEIS) must be prepared to fulfill NEPA requirements.

The BLM is serving as the lead agency for preparing the SEIS in compliance with NEPA, the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR 1500-1508), the BLM's NEPA Handbook (H-1790-1), the Bureau-wide Guidelines for Assessing and Documenting Cumulative Impacts (April 1994), CEQ's Considering Cumulative Effects under the National Environmental Policy Act (January 1997), and other applicable guidance. The Nevada Department of Wildlife (NDOW) and Elko County (Board of Commissioners) are serving as cooperating agencies for preparation and review of the SEIS.

This SEIS describes and analyzes the environmental consequences of the proposed mine expansion (Proposed Action) and project alternatives, including the No Action Alternative. The No Action Alternative is to continue mining operations as currently authorized. The Betze Pit Expansion Project SEIS supplements the 1991 Betze Project EIS (BLM 1991a,b).

### 1.1 Purpose and Need for Action

The purpose of the proposed Betze Pit Expansion Project is to continue to profitably recover gold reserves and resources from the project area utilizing, to the extent practical, existing facilities at BGMI's currently permitted operations.

The project need is to meet the prevailing market demand for gold. The prevailing market demand is adjusted on a daily basis on commodity exchanges throughout the world. This adjustment results from buyers and



**Betze Pit  
Expansion Project**

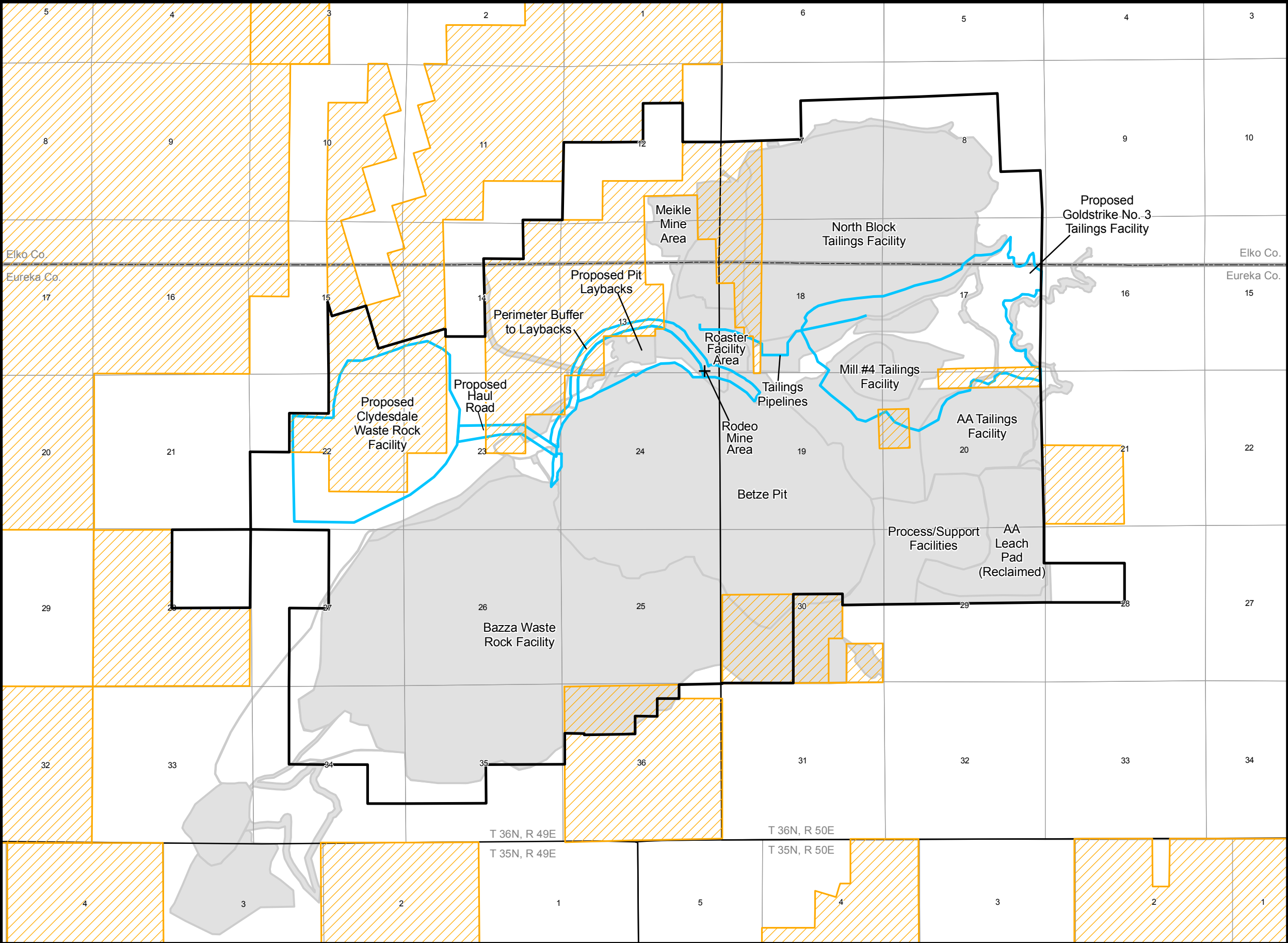
Figure 1-1  
General Location Map



0 50 100 Miles

Source: BGMI and SRK 2007.

04/21/08



**LEGEND**

- Goldstrike Mine Operations Boundary
- Publicly Owned (BLM) Land<sup>1</sup>
- Existing and Authorized Facilities Disturbance
- Proposed Disturbance

<sup>1</sup> Disturbed areas shown outside of the BGMI Mine operations boundary are Newmont Mining Corporation disturbances.

Note: All non-BLM land is privately owned.

Source: BGMI and SRK 2007; BLM 2007 Data Transmittal; BGMI 2007 Data Transmittal.

0 0.5 1 Miles

N  
W E  
S

**Betze Pit Expansion Project**

Figure 1-2  
Site Map of Surface Ownership

sellers agreeing on a specific transaction price, which reflects the current supply and demand for the commodity and other factors.

The BLM is responsible for managing mineral rights access on certain federal lands as authorized by the General Mining Law of 1872, as amended. Under the law, persons are entitled to reasonable access to explore for and develop mineral deposits on public domain lands that have not been withdrawn from mineral entry.

In order to use public lands managed by the BLM's Elko District Office, BGMI must comply with the BLM Surface Management Regulations (43 CFR 3809) and other applicable statutes, including the Mining and Mineral Policy Act of 1970 (as amended) and FLPMA. The BLM must review BGMI's plans for expanding and developing the Betze Pit Expansion Project to ensure the following:

- Adequate provisions are included to prevent unnecessary or undue degradation of federal lands and to protect the non-mineral resources of the federal lands;
- Measures are included to provide for reclamation of disturbed areas; and
- Compliance with applicable state and federal laws is achieved.

## **1.2 Relationship to BLM and Non-BLM Policies, Plans, and Programs**

### **1.2.1 Federal Land Use Plan Conformance**

As noted above, the BLM has the responsibility and authority to manage the surface and subsurface resources on public lands located within the jurisdiction of the Elko District Office, and it has designated lands within the project area as open for mineral exploration and development. In its Record of Decision (ROD) for the Elko Resource Management Plan (RMP) (BLM 1987), the BLM states in its objective under minerals that it will: "Maintain public lands open for exploration, development, and production of mineral resources while mitigating conflicts with wildlife, wild horses, recreation, and wilderness resources." The management decision applicable to this objective is as follows (BLM 1987): "Designate the resource area open to mineral entry for locatable minerals, except for an 11-acre administrative site in the City of Elko." The Proposed Action and alternatives, as described and analyzed in this SEIS, conforms to the Elko RMP (BLM 1986a).

### **1.2.2 State and Local Land Use Plans and Policies**

The State of Nevada recognizes that mining is an important contributor to the state's economy and encourages the development of mineral resources. In Nevada Revised Statute (NRS) 519A.010, the state policy towards mining and reclamation as defined by the Legislature is:

- “(a) The extraction of minerals by mining is a basic and essential activity making an important contribution to the economy of the State of Nevada;
- (b) Proper reclamation of mined land, areas of exploration and former areas of mining or exploration is necessary to prevent undesirable land and surface water conditions detrimental to the ecology and to the general health, welfare, safety and property rights of the residents of this state; and
- (c) The success of reclamation efforts in this state is dependent upon cooperation among state and federal agencies.”

The proposed project is consistent with state policies.

The Eureka County Master Plan (Eureka County 1997) provides only general policy guidance and not site-specific control. However, Eureka County, in cooperation with the Nevada Division of State Lands, has adopted a Policy for Public Lands within its jurisdiction (Eureka County 1985). The proposed project is consistent with the policies in this plan, which includes promoting expansion of mining operations/areas.

Elko County, in cooperation with the Nevada Division of State Lands, is developing an Elko County Public Lands Policy Plan (2007). Details of this plan are not yet available. Elko County is in favor of approval of the mine plan.

### 1.3 Authorizing Actions

In addition to the SEIS, implementing the Proposed Action would require authorizing actions from other federal, state, and local agencies with jurisdiction over certain aspects of the proposed project. **Table 1-1** lists the required permits or approvals that are already in place or would be obtained and the responsible regulatory agencies. BGMI is responsible for amending existing permits and applying for and acquiring additional permits, as needed. **Appendix A** provides additional permitting and approval information.

**Table 1-1 Major Permits and Approvals**

Permit / Approval	Granting Agency
Supplemental Environmental Impact Statement Plan of Operations Approval Right-of-Way (ROW) Permits	U.S. Department of the Interior, BLM
Explosives Permit	Bureau of Alcohol, Tobacco, and Firearms
Section 106 National Historic Preservation Act	Programmatic Agreement BLM and State of Nevada Historic Preservation Office
Review of jurisdictional determinations for Clean Water Act (CWA) Section 404 permitting	U.S. Army Corps of Engineers (USACE)
Surface Disturbance Permit Permit to Construct Permit to Operate (Title V) Nevada Mercury Control Program Operating Permit	Nevada Department of Conservation and Natural Resources, Nevada Division of Environmental Protection (NDEP), Bureau of Air Pollution Control
Water Pollution Control Permit Reclamation Permit	Nevada Department of Conservation and Natural Resources, NDEP, Bureau of Mining Regulation and Reclamation (BMRR)
Permit to Appropriate Water Permit for Dam Construction (Tailings/Water)	Nevada Department of Conservation and Natural Resources, NDEP, Division of Water Resources
Industrial Artificial Pond Permit	NDOW
Approval to Operate a Sanitary Landfill	Nevada Department of Conservation and Natural Resources, NDEP, Bureau of Waste Management
General Storm Water Permit General Permit to Operate and Discharge	Nevada Department of Conservation and Natural Resources, NDEP, Bureau of Water Pollution Control
Permit to Operate	Nevada State Minerals Commission, Division of Minerals
Hazardous Materials Storage Permit	State of Nevada, Fire Marshal Division
Road Construction Applications Building Permits	Eureka County Elko County

## **1.4 SEIS Organization**

This SEIS follows the CEQ recommended organization (40 CFR 1502.10). Chapter 1.0 provides descriptions of the purpose and need for the action, the role of the BLM in the SEIS process, and the required regulatory actions for the proposed project. Chapter 2.0 describes the Proposed Action and alternatives, including the No Action Alternative. Chapter 3.0 describes the affected environment and the direct, indirect, and cumulative impacts associated with the Proposed Action and alternatives; possible mitigation to reduce or minimize impacts; and any residual adverse effects following the implementation of mitigation. Chapter 4.0 summarizes public participation and the scoping process and the consultation and coordination undertaken to prepare the SEIS. Chapter 5.0 presents the list of SEIS preparers and reviewers. Chapter 6.0 presents the list of references, acronyms and abbreviations, glossary, and index. Copies of supporting documents are on file at the BLM Elko District Office in Elko, Nevada.

## **1.5 Summary of Major Issues**

Four major issues associated with the Proposed Action are discussed in this SEIS. They include:

- Mule deer migration corridor disruption during the construction of Clydesdale Waste Rock Facility before the Bazza Waste Rock Facility is fully reclaimed;
- Betze Pit lake water quality and associated effects;
- Mercury emissions resulting from extended roaster facility use; and
- Social and economic value to the community from extended employment and operations on site.